THE NEWSLETTER FOR SEATUG

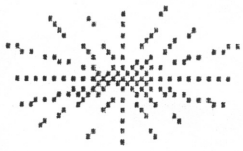
SWYM

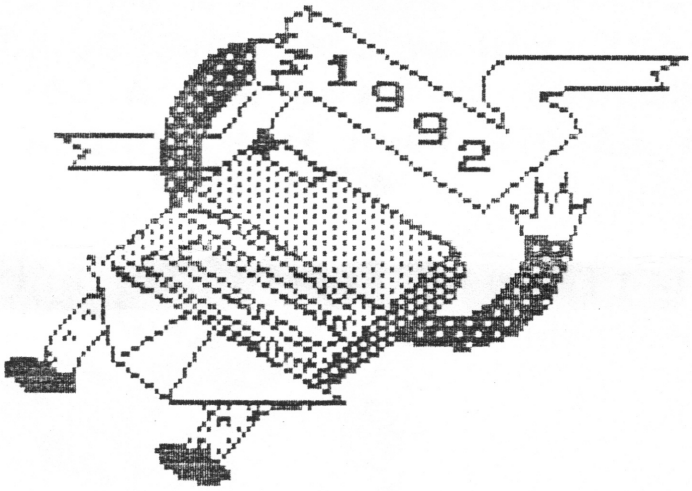
JAN/FEB
1992

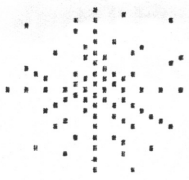
VOLUME 7
NUMBER 8

1992

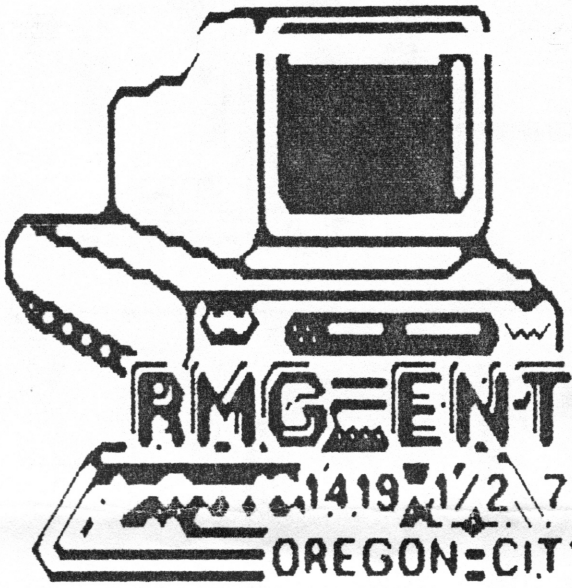
NEW YEAR,







OR SAME YEAR?



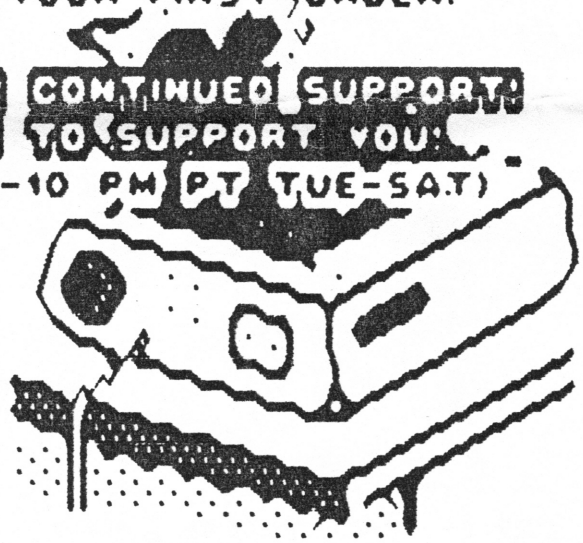
RMG ENTERPRISES

1419 1/2 7TH STREET
OREGON CITY, OR 97045
503-655-7484 2-10 PM PT TUE-SAT

WE ARE NOW
THE WORLD'S LARGEST
T/S DEALER!

WE WANT TO SERVE YOUR COMPUTER NEEDS IN ANY WAY WE CAN. IF YOU WOULD LIKE TO RECEIVE OUR CATALOG, JUST SEND $4 TO THE ADDRESS ABOVE. YOU WILL RECEIVE OUR BIG COMPUTER PRODUCT CATALOG AND A COUPON GOOD FOR $3 OFF YOUR FIRST ORDER.

THANK YOU FOR YOUR CONTINUED SUPPORT!
WE WILL CONTINUE TO SUPPORT YOU!
(BUSINESS HOURS: 2-10 PM PT TUE-SAT)



EDITOR
Chuck Kereluck

PRESIDENT
Malcolm Post

V. PRESIDENT
?

SECRETARY
?

TREASURER
Dave Battershill

LIBRARIAN
Dale Fritz

for general info_

Malcolm Post
3323 Frater Ave.SW
Seattle, WA
98116-3112

for articles/ads submissions_____

Chuck Kereluck
9013 32nd Ave NE
Seattle, WA
98115

for newsletter exchange_____

Robert Cazares
601 E. Roy St.
Seattle, WA #102
98102-4646

for memberships & renewals, mail $10 to_____

Dave Battershill
P.O. Box 64462
Tacoma, WA 98464

(c)1992 SEATUG

Opinions expressed do not necessarily reflect those of the editor, publisher or SEATUG.

SWYM CONTENTS

A PUBLICATION OF SEATUG

RANDOM BITS.....2
Query of the Month:
Does SEATUG need officers?

INPUT & OUTPUT.....4
2 letters! 2 letters! We actually got 2 letters!

QL PRIMER.....5
Part two of two:
Why it's so hard for operating systems to naturally evolve -- And what can be done about it!

NEXT MEETING

FEB 6, 1992

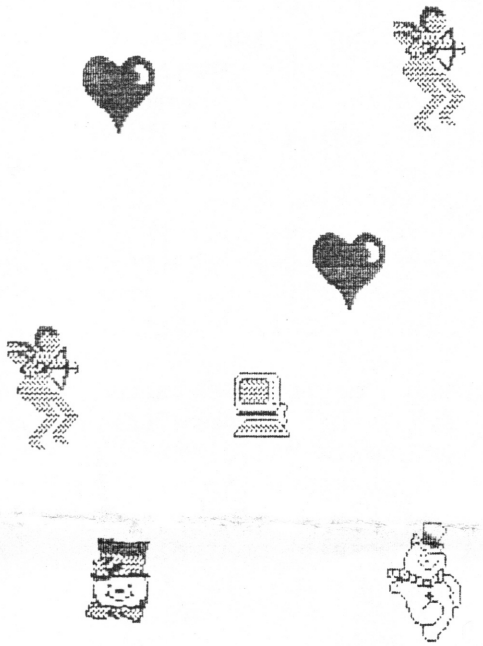
MAR 5, 1992

7:30 P.M.

LOCATION

UNIVERSITY
FEDERAL
SAVINGS BANK

8517
35th Ave NE
Seattle



If any part of this newsletter is reproduced without proper credit you're in BIG TROUBLE bub!

Random Bits

by Chuck Kereluck

HAPPY NEW YEAR!

Happy New Year to all Sinclair, Timex/Sinclair and Cambridge users! We hope that your Christmas was enjoyable and fulfilling, even though new-product items may have failed to materialize under your tree.

1992 is a brand new year, this year, and possibilities abound for exciting realities to bring to bear with our relatively simple and unique machines. Did Santa bring you that new 386-SX with Super-VGA and Windows? With a laser printer, to boot (pun intended)?? Can't wait to show it off to your non-computing friends (You do have non-computing friends, don't you?)? Here's a tip: For those folks, they will be most impressed with automatic control of common, ordinary, household things. This means simple I/O. Staring at a VGA display with layered windowing will just seem like a video game, to your audience, but if you can, say, control all house lights and appliances from a central location... now, that's technology!

One of the most "magic" features demonstrated in the Kereluck household, is that simple Radio Shack control module system, where lamps, TV and especially all Xmas lights are plugged into and remotely controlled thru various "boxes", which in turn plug "into the wall." Simple, uncomplicated but amazing.

How easy would it be to whip up a TS1000 or 2068 interface to "talk" to these modules thru their existing house-wiring system?

You tell us.

MAJOR ELECTION CHANGE

The November Election replaced a major office-holder: Derryck Turner emphatically turned down all offers for yet another term of President, to be democratically replaced with now-ex-Secretary, Malcolm Post! Derryck had been Prez for a long time, and we can certainly understand his position. Change is inevitable, however: Look what happened to Gorbachev!

Let's all welcome Malcolm into his new job and wish him luck in presiding over this wild bunch!

As for other elected offices, we did not elect a vice-president, a secretary or program co-ordinator. Of course, an ad co-ordinator was entirely out of the question. Yours truly retained Newsletter Editor. Dave Battershill and Dale Fritz fiercely hung onto their posts of Treasurer and Librarian, respectively. A decision was made to vote on those remaining offices the following month. However, due to the holiday season, only four members showed up for the non-meeting in December (One importamt choice was made: the next SEATUG meet was held the 2nd Thursday in January, the 9th, instead of the 2nd, to facilitate full system recovery!).

Let's all sincerely hope that this lack of management personnel selection is a mere delay and not the harbinger of some dreadful trend.

AUCTION NEWS

The best news yet, is that remote members can successfully bid and receive auction items! For those of you who may have been unsure about our system, see the letters section. Basically, it works like this: When an auction is upcoming, all SEATUG members receive sufficient prior notice via SWYM. Any interested remote members mail their bids, on one or more bid items, along with a check (make it out to SEATUG) covering all bid amounts (should you get lucky), to an elected SEATUG officer, preferably the Treasurer. At auction time, a present member volunteers to "stand-in" for the remote, and vocalizes the remote's bids, along with any of his own. If the remote wins a bid, an officer will be appointed to package and mail the goodies to the remote. If you mail multiple bids, it's quite unlikely (but not impossible) to win all, so any monetary balance due you, minus postage, will be returned. If you just mail a single bid, throw in a few extra bucks (depending on the item)

to cover postage.

There! Now, next time an auction comes around, don't be shy!

BBS NEWS

Just when you thought it was safe to plug your modem back in, along comes another BBS with a Sinclair Users room!

Those of us in the Puget Sound Area are well aware of that excellent (and free!) computer-oriented newspaper, Computer User (3530 Bagley Ave North, Seattle, WA 98103). Now they have opened a bulletin-board system that's even better than their newspaper! CUIX is this Computer Users Information Exchange that runs 24-hrs/day from 300-9600 baud. Just call 206-547-2393. New users will be queried the usual amount of new-user queries. Afterwards, play on-line games, check your E-Mail, read/post classified ads, read Computer User articles and Newsbytes columns, check into various users groups (look for "/SEATUG"), have live, on-line chats, upload files, download shareware files, purchase time, check your account and much more! An additional feature, currently in development, will be the ability to dial out to another BBS!

Now, about that charge: 75 cents per hour. If you run faster than 300 baud, there will be no worries. At the low end, you may find time mounting quickly. This still amount to a very inexpensive service, offering features not found on free BBS-es.

Check into it. We TS1000 and 2068 users will have a tough time playing the online graphic games, but with a PC, this should be a real blast! And, if the membership likes it, I feel the Treasury should pay for any and all billed time accrued by any member(s). Currently, there is a block of free time left over in my personal account because I signed up before the "10 hours free" offer was over. See me for details. Also, two free hours per participating SEATUG member per month will be provided so that officers will be able to maintain and update our SIG.

Any arguments??

CHOICE BITS II

Here are the answers to last issue's brain puzzles, in order:

1. & 2.) You can buy a brand new QL for only $35, from Frank Davis and Paul Holgrem, who, much surprise to them, have been given rights, from the British, to market the QL in the U.S. The catch here is that you have to purchase 1000 of these beauties at one shot to qualify for the $35/per!

3.) Yes! Timex of Portugal made a software-selectable Spectrum Emulator for the 2068 that plugs into the dock port! Simple "IN" and "OUT" commands control everything. In fact, see the Sep-Nov 1991 issue of TIMELINEZ for the hardware project that details this!

4.) Where else but in Poland can you stage a Zebra FDD disk users convention and have 200,000 users show up? This didn't happen, but that's how many there are!

5.) If you've acquired a mass of T/S gear and don't know who to sell it to, consider Sweden. Andy Hradesky posted a BBS notice offering to sell his ZX-80. Some time later, a Sinclair fan in Sweden replied, offering $250 for it! Since no higher bids existed, the unit was sold...

6.) Yet to come...!

P.S.

This issue is obviously late, due to holidays and post-holiday illnesses. For this, I apologize. As the new year progresses, production should smooth out. See you next time.

ATTENTION!

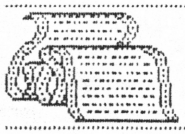
SEATUG

MEMBERS

IF YOU HAVEN'T YET PAID

1992 DUES, DO IT NOW!

SWJM



INPUT & OUTPUT

INPUT:

Just a quick note of thanks for your help regarding my recent auction bids. As you may recall, I was reluctant to bid at all, since I assumed my (rather low) offers would easily be topped; but, I ended up getting the MW-100 printer, which is the item I really wanted in the first place! I also appreciate your time and effort in packing and shipping my winnings; the equipment arrived in great shape. On arrival, I described the MW-100 to my wife as the "World's Silliest Printer", a title for which I believe it is entirely qualified; but, I love that kind of stuff if it can be obtained for a reasonable price.

Again, thanks.

Gil Parish
Beggs, OK

OUTPUT:

Glad to be of service, Gil. Be sure to watch for other auction announcements in the future. All other "remote" SEATUG members, please take note: Our 'bidding-in-absentia" system works!

----- *Chuck*

INPUT:

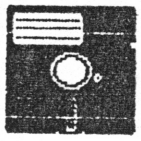
SWYM was interesting. Nov/Dec 1991. Amongst the interesting info is the deal on copyrighted material. Darn hard to know what the status is of the stuff. Legal or not, what I feel is that if someone has software regardless of how he got it so long as it is the original material and it is missing the documentation and I have it, I will provide copies at cost. Also, if the software will not LOAD I will supply at cost a replacement software. I feel that is what the whole thing is about. If the company or individual no longer will supply the material and further, will not answer an inquiry when supplied with a SASE, then I cannot see not supplying someone with a copy, since the original company/individual refuses. Just my own personal feelings and not to be used as a legal guide.

Sinclairly yours,
Donald S. Lambert
T/SNUG
Auburn, IN

OUTPUT:

Thanks for the disclaimer, Don. There is, as you realize, a whole level of controversy surrounding the copying and/or copyrighting of software. See Ken Goods' article on "copy-left." If and when the vendors legally release their hard work from copyrights, however, it's best not to chance raising their ire.

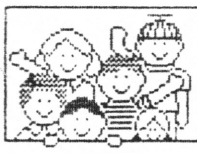
-----*Chuck*



PC S/W

SHAREWARE LIBRARY
DISKS AVAILABLE
RMG NOW HAS OVER 60 MBYTES OF PC MS-DOS SHARWARE AVAILABLE FOR A VERY GOOD PRICE! AT ONLY $2.50 PER DISK WHEN YOU ORDER A MINIMUM OF 10 PROGRAMS AND
WE PAY THE SHIPPING!
FPR A FREE LIST OF PROGRAMS AVAILABLE. SEND S.A.S.E. WITH $.50 POSTAGE OR A DISK MAILER WITH $.50 POSTAGE (SELF-ADDRESSED) AND YOU WILL GET A FREE LISTING WITH AN ORDER BLANK.

RMG ENTERPRISES
1419 1/2 7TH STREET
OREGON CITY, OR 97045
503/655-7484 2-10 PM PT TUE-SAT



QL primer

by Ken Goods

Way back in the days of old, when giant corporations were the only ones that had the money to purchase a computer, source code for the programs came with the programs. You could fix the bugs in the programs by finding the problem in the source code. Fix the bug, re-compile and you were back in business. What if you wanted to add a feature that wasn't there? Simple, add it to the source code, re-compile and you had a custom tailored program.

When computers really started taking off, software companies began to hold back the source code because they didn't want other software companies to see how thier programs operated, then write and sell improved versions.

Now there was a problem, what if you out grew your program? You could no longer just revise your program to fit your needs. So you went to the software house that supplied the program and asked "pretty please?" would they add this feature to your program? No way, unless you wrote them a blank check. So, your last resort was to change software or to run the program as is and work around the sometimes major inconviences. If you chose to buy new software, you had to un-learn the program you've been using for years and start the learning curve for the new program (sometimes a real steep climb!). This is why all FSF programs will come with source code!

Another problem was that of operating systems being incompatible. If you were running an IBM mainframe you had a different O.S. than if you were running a DEC mainframe. This was great for hardware/software suppliers because once they had a client base they could charge just about any price they wanted to for on-going support. Besides business, computer researchers didn't like this situation because when a new application was written for one system they wouldn't have access to the research that was done for that application. If they wanted to convert that application to another system it would have to be written from scratch. Very inefficient!

Then along came the UNIX operating system and C programming language from Bell Labs in the early 70's. Unix became a favorite project of Dennis Ritchie and Ken Thompson at AT&T. Ritchie created the C programming language especially for writing UNIX and also to make the operating system portable. But it didn't quite work out this way. It seems that even after all this work, problems still arose when UNIX tried to run "on top of" the existing operating systems. The solution was to actually use UNIX in place of the operating system the machine came with. Remember, this was around 1976, and such thought was unheard of. Back then the machine and it's operating system were considered to be inseperable. But it worked! Now, computer researchers in the universities had something to work with.

One of the universities that picked up a $400 a copy of UNIX with the source code was the University of California at Berkeley. A couple very bright students, Bill Joy and Chuck Haley, made significant changes to the orginal UNIX. They added multitasking and networking capabilities, just to name a couple. This made Berkeley UNIX (or BSD UNIX) the one of choice for everyone using this operating system at the time. Only one problem remained. Since BSD had some of AT&T's source code in it companies that wanted to run it still had to purchase a source code license from AT&T. The cost of this license went from $17,000 in 1977 to $43,000 in 1981. Seems that AT&T figured out how much demand there was for the BSD version of UNIX huh? So the companies that "had to have" BSD would buy UNIX and the souce code license from AT&T so they would be legal to use BSD. They would then get a copy of BSD from Berkeley for, get this, a duplication fee. All that was left to do was to put the operating system (AT&T's UNIX) they paid $43,000 for, in storage somewhere and load BSD, which they paid less than $500 for, into their system and run it. Makes

alot of sense, huh?

It was during this time that Richard M. Stallman and staff at MIT was working on the LISP machine, and an operating system designed for artificial intelligence applications. This group of people were very special. When there were bugs to fix people just did it. When someone wanted to add an enhancement, they just did it. Work was fast and furious. Then about 1980 a group of these people deciding that this system had some commercial merit broke away to start Lisp Machine Inc. (LMI). A while later another group broke away to form a competing firm called Symbolics. Both companies had a license with MIT to use the LISP Machine operating system, but it had a catch: Any developments made must be returned to MIT. So when an advance was made to one operating system, the other company had access to the code through MIT. Everyone saw the advantage to this. All the research that went into a new advance didn't have to be done twice, so the operating system grew by leaps and bounds.

Then, in 1982 Symbolics had thier Lawyers go through thier contract with MIT with a fine-toothed comb. These lawyers discovered that, while they did have to give new software back to MIT, they could restrict MIT from sharing this information with anyone else. Great, here we go backwards again! Back at MIT, Richard Greenblatt, credited with inventing the LISP machine, and Stallman were crushed. But rather than sitting back and giving up, they decided to do something. Every time Symbolics would add something to thier system, they would hack round the clock to re-write the same code and then add it to MIT source code, making it available to LMI. Source code that took Symbolics months to write Stallman could re-write in days. This "punishment" of Symbolics went on for two years, at which time the whole war became moot due to non-acceptance of the LISP Machine by business and industry. But it was through this fight that Stallman realized what he had to do. Rather than punishing those who don't want to comform to the software-sharing idea, he would start a new language/operating system and apply a very special copyright to it.

The operating system Stallman came up with is called GNU. GNU is a recursive acronym meaning GNU's Not Unix. By this time UNIX, even if it was expensive, was becoming very popular. Stallman knew if he could write a free version of this operating system, he would have a winner. People using this system would continue to update and revise it, if first, it was as good as anything on the market, and second, if the source was included for free! When the source code is included, programmers don't have to waste time figuring out how to write parts of the program that have already been written. They can fix bugs, streamline code for more efficient running, and add more enhancements to the program. Then as part of the agreement with FSF, they send the improved versions back to Stallman so he can update his versions and re-distribute them. As you can see, this keeps software going foward and at a much more accellerated pace. Programs will improve in both speed and functionality.

For the clincher, Stallman invented a new kind of copyright, or what some people refer to as copyleft. Since Stallman worried that a company would take his new operating system, make some changes, then sell their versions as "new" programs which are protected by copyright laws, he came up with a new way to deal with this problem. In short what this "copyleft" says is, "You can do anything you want to this software except restrict others' rights to copy it." It also requires that anyone who distributes a GNU program make the source code available for a nominal fee. And then to make it real tough, included was a clause that covers the problem of some GNU code being used in another program. If any piece of a copylefted program is included in another program, the entire program is copylefted! This is a condensed version of the agreement, but you can see that Stallman didn't leave any holes! (I'll have a copy of the agreement soon for those that are interested.)

Stallman has written EMACS mentioned earlier, and since has

written the GNU C Compiler (GCC). GCC is one of the best C compliers on the market today, or I should say not on the market. Remember, it's FREE! The advantages of GCC over the commercial C compliers on the market? Well for one, how about 20 to 30% faster code? Two, it produces more reliable code than other compliers. And most important, it will run on a dozen different microprocessors, while most compliers are written for only one. How's that for compatibility and portability?

OK, so what does this have to do with us? As I stated earlier, I'm writing this article with a scaled down version of EMACS. Bill and the gang at SLIX are now in the process of putting a free C compiler together that will be compatible with GCC. The possibilities are endless! How about running GNU on the 386-SX file-server for your TS1000?

The most exciting thing about all this is, we, with the help of the source code, are in control of our computing destiny. We have the power to change the things we don't like about our software. And we have the right to give copies of our software to, and keep, our computing friends!

If you want more information about the Free Software Foundation or would like to make a tax-FREE contribution, contact:

Free Software Foundation
675 Mass Ave
Cambridge, MA 02139
(617) 876-3296

If you think you would like to help out with the projects Bill Millers' group is doing, or if you just need some Sinclair information, be sure to drop him a line.

That's it for this month so, Happy (free!) computing until next time.

SWYM

SWYM is the official newsletter of the Seattle Area Timex Users Group. It is published bi-monthly with receipt due before the 1st Thursday of the expected month.

SUBSCRIPTIONS for non-Seattle area users are only $10/yr, to SWYM, c/o Dave Battershill, Treasurer, P.O. Box 64462 Tacoma, WA 98464. Free exchanges are made between other related clubs via the newsletter exchange program.

ADVERTISING is accepted and encouraged! Full-page, half and quarter-page ad space is available. Contact Chuck Kereluck for rates.

ARTICLE CONTRIBUTIONS are welcomed and encouraged. A textfile from MSCRIPT, TASWORD or a Pixel Print column is preferable. If used, make a tape copy and mail to Chuck Kereluck. For repeat contributers, mailed tapes will be returned. For modem users, articles (in either 2068 or ASCII format) may be uploaded to PHOTOSYNTHESIS (206)323-2433. 24-hour access. 8, 1, N.

Typed, 8-1/2" X 11" text is acceptable. If diagrams are included, use a large mailer to accommodate the unfolded size. Articles supplied on ZEBRA FDD or IBM PC 5-1/4" or 3-1/2" disks are also acceptible. These will be returned to the author.

REPRINTS. Articles in SWYM may be reprinted for use in other newsletters, providing proper credit is given to the author and publication.